# Board for Vocational Education

State of Illinois

BULLETIN No. 16

A Bibliography of Agricultural Books for the High School Library



Prepared by CARL COLVIN

Department of Agricultural Education University of Illinois

Approved by

FRANCIS G. BLAIR

Executive Officer of the Board for Vocational Education

Springfield, November, 1919

[Printed by Authority of the State of Illinois]

ILLINOIS PRINTING CO., DANVILLE, ILL.
(27596-2M)

799135

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#### INTRODUCTION.

The library is a most important factor in teaching vocational agriculture. It is of greater importance in schools where the home project is made the basis of the work in agriculture. The library should be made available to the students in agriculture. In schools where the main school library is not accessible at all times, it will be found advantageous to keep the agricultural books in the agricultural room. They may be used here during the period designated for supervised study.

Good books are very desirable and effective tools in the hand of the discriminating teacher who attempts to direct the thought and activities of the community of which he is a part. No one has a better opportunity to help direct the reading habits and practices of the community than the teacher of vocational agriculture. The high school may render a distinct service to its constituency by providing a library on agricultural interests and arranging for its use under the direction of the teacher.

This bulletin is intended to suggest a bibliography of books worthy of a place in the high school library. It is neither possible nor advisable to include all books published on the various topics. Book catalogs furnish such lists. This list has been prepared in cooperation with the various departments of the College of Agriculture, University of Illinois. Credit is due the members of these departments who carefully criticized the lists and offered many suggestions.

The books are listed according to divisions which have been given literal designations. Each book bears a number as well as the letter which names the division; thus A-3. A list of publishing houses will be found in the back of the bulletin. Blank spaces are left in each division where the names of new books may be listed. The bibliography should be kept up to date. Lists of new books may be obtained from time to time from the Department of Agricultural Education, University of Illinois.

#### NOTE TO TEACHERS.

This bulletin will be adopted for use in all departments of vocational agriculture in the State, and the letter and numeral key assigned to each book will be used by all pupils in reporting reference readings to the teachers, and by all vocational teachers in their reports to the State Supervisor. For example "Dc1." will be the key to use in referring to "Soil Fertility and Permanent Agriculture," by Cyril G. Hopkins. This bulletin is a very complete and thorough bibliography, and by adopting a uniform system of naming and reporting these books confusion and better results in general will obtain. I suggest that these books on your library shelves be numbered with the letters and numerals here adopted.

Aretas W. Nolan, Supervisor of Agricultural Education.

#### A.—AGRICULTURE.—General.

A 1. Essentials of Agriculture.—H. J. Waters. Ginn & Co.

1915. 455 pp.

This book is for students who desire a practical working knowledge of the essentials of agriculture. Statements of the principles underlying successful farm practice, covering soils and soil fertility, crops, animal husbandry, business aspects of farming, mechanical power on the farm. Score cards for judging.

A 2. A Year in Agriculture.—A. W. Nolan, A. M. Row, Peterson

& Co. 1919. 391 pp.

A general one-year course in agriculture, with home projects, covering agronomy, animal husbandry, farm business and life, and horticulture.

A 3. Principles of Agriculture.— J. H. Gehr. MacMillan.

A general high school text, covers main field in agriculture. Questions and suggestions for review are included. Well illustrated.

A 4. Agriculture.—O. H. Benson and G. H. Betts. Bobbs, Mer-

rill Co. 1915. 444 pp. Illus., charts and diagrams.

Attempts combination of real practical information with concrete home and school projects to be carried out by the pupils. Gives a large amount of practical scientific information wholly without scientific terms. Covers farm crops, horticulture, soils, farm animals, farm economics.

Effective Farming.—H. O. Sampson, B. S., B. S. A. Mac-

Millan. 1918. 477 pp. Illus.

Aims to present instruction in practical agriculture in such a way as to be readily understood both by pupil and general reader, and to be directly adaptable to the needs of the classroom and laboratory.

A 6. The Story of the Soil.—Cyril G. Hopkins. Richard C.

Badger, Boston, The Gorham Press. 1911. 350 pp.

The Story of the soil told from the basis of science and real life; told in the form of fiction.

A 7.

A 5.

A 8.

# B.—AGRICULTURAL ARITHMETIC.

B 1. A Rural Arithmetic.—I. A. Madden & Edwin A. Turner.

Houghton, Mifflin. 1916. 236 pp.

One-fourth of book given to systematic review of fundamentals with a new view,—in relation to agriculture. Later chapters contain a large number of concrete, practical problems which apply principles. For high grades and high school. Problems based upon results of scientific investigations at various agricultural experiment stations throughout the U.S. В 2. Farm Business Arithmetic.—Curtis J. Lewis, B. A. D. C.

Heath. 1915. 190 pp.

May be used for a course of study or for supplementary arithmetic work. Its purpose is to illustrate the principles of farm arithmetic and the possibilities of the farm. The problems are generally type problems to be extended with local values.

В 3. Agricultural Arithmetic.—G. C. Shutts & Wilbert W. Weir,

B. S. A. Webb Pub. Co. 1917. 249 pp. General review to strengthen knowledge of general principles of arithmetic. Application of arithmetic to farm experience; conditions taken from actual farm life in each locality.

Agricultural Arithmetic.—W. T. Stratton, A. M., and L. Remick, B. S. MacMillan. 1916. 239 pp. В 4.

Review of fundamental operations; basic principles applied by use of problems met in daily experience.

В 5.

B 6.

# B 7.

## C.—AGRICULTURAL EDUCATION (For the Teacher)

- The Project Method.—J. A. Stevenson, Ph. D. MacMillan. (In Press). 1919.
- Teaching by Project.—Chas. A. McMurry. MacMillan. (In Press). 1919.

The Project Method in Education.—Mendel C. Brannon. 3.

R. G. Badger Pub. Co., The Gorham Press. Boston.

Written for the purpose "of helping teachers to meet additional opportunities that have come." The project method in various school subjects, reorganization of the course of study, the preparation of the teacher. Each chapter is followed by a list of questions illustrative of the general contents of the chapter.

C 4. The Teaching of Agriculture.—A. W. Nolan. Houghton,

Mifflin. 1918. 272 pp.

"Recommendations concerning the aim, scope of work, the principles, materials and methods to be used in teaching agriculture in elementary and secondary schools."

Vocational Agricultural Education by Home Products.— Rufus W. Stimson. MacMillan. 1919. 462 pp. Illus.

For use in agricultural departments of high schools under the Smith-Hughes Act. May be used as a guide to teachers in vocational agricultural teaching.

Educational Resources of Village and Rural Communities. J. K. Hart. MacMillan. 1913. 277 pp.

For better development of essential social understanding in rural and village communities. Takes up main lines of community interest, activities and resources—economic activities, sanitation, beautification, local history and political life, social and religious life, moral and social deficiencies, community activities and education.

C 7. The Means and Methods of Agricultural Education.—A. H.

Leake. Houghton, Miffin Co. 1915. 265 pp.

The history of the development of agricultural education shows the conditions of rural life, the improvement and extension of rural schools; the agricultural colleges.

C 8. Education for Efficiency.—Eugene Davenport. Boston,

1911. 184 pp.

Discussion of certain phases of the problem of universal education with special reference to academic ideals and methods.

C 9.

# D.—AGRONOMY. a.—Cereal and Field Crops.

Da 1. Productive Farm Crops.—E. G. Montgomery. Lippincott.

1916. 493 pp. Illus.

Aim.—To develop fundamental principles of crop production as demonstrated by practical experience; in general supported by experimental evidence. Intended for students who have some practical knowledge of crop production, for agricultural short courses and for high schools and beginners in agricultural colleges. Takes up each of the common field crops, grasses, roots, grains, etc.

Da 2. Soils and Crops.—J. G. Mosier. Rand McNally & Co.

1919. 394 pp. Illus.

Principles and practices of crop production. For secondary schools. Factors of crop production, cereal crops, legumes, forage crops, fiber crops, tuber and root crops, sugar crops, miscellaneous.

Da 3. Field Crop Production.—George Livingston. MacMillan.

1916. 359 pp. and appendix.

A text for elementary courses in schools and brief courses in colleges. General information on field crops. Little statistical matter and experimental data included; can be presented in more up-to-date form by lectures to supplement the text. Includes chapters on each of the common field crops and on the marketing of grain.

Da 4. The Corn Crops.—E. G. Montgomery. MacMillan. 1916.

342 pp. Illus. Large number of tables.

Parts 1 and 2 technical, for students who have had training in science. The plant—its structure, physiology and normal requirements, production as related to climate and soil.

Parts 3 and 4 more practical, written in popular style, for less advanced students. Adaptation of plant to natural conditions and of soil to needs of plant; protection against weeds, fungous diseases, insects.

Da 5. Weed Flora of Iowa.-L. H. Pammel. Iowa Geological

Survey, Bul. No. 4. 1913.

Much stress on the geographical distribution of weeds. Contribution to the local flora of the U.S. Summary of weed laws in the various states of the Mississippi Valley.

Field Crops.—A. D. Wilson & C. W. Warburton. Webb Da 6.

Pub. Co. 1918. 509 pp. Illus.

Prepared for students of high school grade and for those who wish to teach practical scientific courses in agriculture. Intended for one-year course; suggested laboratory exercises and field projects at the end of each chapter. The book covers grain crops, forage crops and miscellaneous crops.

The Small Grains.—Mark A. Carleton, M. S. MacMillan. Da 7.

1918. 638 pp.

Fundamental facts underlying agronomy; primarily for instruction in colleges and universities, but adapted for use in secondary schools. Fundamental principles of plant structure and nutrition as related to soils; four principal cereals treated separately as to origin, characters, classification, varieties, selection, hybridization. All treated together as to climate, cultivation, insects, fungous pests, etc.

Diseases of Economic Plants.—F. L. Stevens, Ph. D. and J. Da 8.

G. Hall, M. A. MacMillan. 1910. 490 pp. Illus. Designed for those who wish to recognize and treat plant diseases without long study of their causes. Chief prominent characteristics of the most common destructive plant diseases in the U.S. caused by bacteria and fungi. Information as to the best methods of prevention and cure. Technical discussion avoided.

Da. 9. Manual of Weeds.—Ada Georgia. MacMillan.

Describes the pernicious and troublesome plants in the United States and Canada; their habits of growth and distribution and methods of control.

Da 10.

Da 11.

Da 12.

## Db.—FARM MECHANICS.

Farm Concrete.—K. J. T. Ekblaw, M. S. MacMillan. 1917. 295 pp. Illus. Plates.

Discusses the manufacture and uses of concrete in farm structures; and explains simply and fully cost estimating, properties, mixing and placing of concrete.

Gas Engines for the Farm.—C. F. Hirschfield and F. C. Ulbricht. Jno. Wiley & Sons. 1914. 239 pp. 188 Illus. Diag.

Compares the efficiency and describes the operation of the different types of farm engines. Discusses the valve, ignition, cooling and governing systems; lubrication, desirable and undesirable features of construction, theory of construction and the power, price and speed of engines.

Equipment for the Farm and the Farmstead.—H. S. Ramsower.

Ginn & Co. 1917. 523 pp. Illus. Diag. Discusses materials and construction of farm buildings, sources and systems of water supply, lighting and sewage disposal. Illustrates and explains use of farm machinery and

- Handy Farm Devices and How to Make Them.—Rolfe Db 4. Cobleigh. Orange-Judd. 1916. 288 pp. Illus. Plates and diagrams.
- Farm Shop Work.—G. M. Brace and D. D. Mayne. Amer-Db ican Book Co. 1915. 291 pp. Illus. Farm shop work, practical manual training exercises.

Db 6.

Db 7. Db 8.

#### Dc.-SOILS.

Dc 1. Soil Fertility and Permanent Agriculture.—C. G. Hopkins,

Ph.D. Ginn & Co. 1910. 646 pp. Foundation principles of permanent agriculture. Presupposes general knowledge of farm practice. Systems of permanent agriculture; soil investigations, summaries of experiments; fertility factors; fertilizers, plant food, testing of soil.

Dc 2. Soil Physics and Management.—J. C. Mosier, B.S., and A. F.

Gustafson, M.S. Lippincott. 1917. 417 pp. Illus.

Text for agricultural students, reference book for farmers. Attempt to emphasize the principles of soil physics, omitting the details of practice except where necessary for illustration. Principles apply to any section of the country. Material arranged from the teaching standpoint.

Soil Conditions and Plant Growth.-E. J. Russell, D.Sc. Dc 3. Longmans, Green & Co. 1915. 188 pp. (Monograph on Bio-

chemistry).

A study of the soil as a medium for plant life. Requirements and constitution of the soil, C and N cycles, biological conditions in the soil; micro-organisms. Soil analysis and its interpretation.

Soils and Manures.—E. J. Russell, D.Sc. Cambridge Univ. Press. 1915. 201 pp. Illus. Dc 4.

No knowledge of chemistry assumed; essential facts to be supplied by teacher. Purpose of book is to give understanding of principles. Book covers nature of the soil, cultivation and control of soil fertility, and discussion of various fertilizers. Appendix; methods of soil analysis, directions for experiments. Dc 5. Rocks, Rock Weathering and Soils.—Geo. P. Merrill. Mac-

Millan. 1906, 387 pp. Illus.

Constituents, physical and chemical properties, and mode of occurrence of rocks; kinds of rocks; weathering—principles involved, special cases, physical manifestations of weathering, time consideration; transportation and redistribution of rock debris.

Dc 6. Farm Manures.—Chas. E. Thorne, M.S.A. Orange-Judd. 1913. 240 pp. Illus.

Gives general statement of the origin and nature of soil. The main emphasis of the book is on the specific subject, farm manures—composition, production and practical use by the farmer. General chapter at end of book on farm management for fertility maintenance.

Dc 7. The Soil.—A. D. Hall, M. A. E. P. Dutton & Co. 1912.

297 pp. (2 ed.)

Origin of soil; mechanical and chemical analysis; discussion of living organisms; absorption of salts; causes of fertility and sterility. Soil types and their chemical analysis. Charts and tables.

Dc 8. Soils and Fertilizers.-T. L. Lyon. MacMillan. 1917.

248 pp. Illus.

For use in secondary schools; no knowledge of chemistry required. Soils.—Their composition, formation, properties and structure; plant nutrients; fertilizers and their use; crop rotation.

Dc 9. Fertilizers and Manures.—A. D. Hall, A. M., F. R. S. E.

P. Dutton. 1909. 375 pp. Tables; a few illus.

Book intended for farmers and for senior students and teachers in agricultural schools; language non-technical; presupposes some knowledge of elementary chemistry. Theory of fertilizer action, different types of fertilizers, their functions and valuation.

Dc 10. Text-book of Land Drainage.—J. A. Jeffrey. MacMillan.

1916. 246 pp. Illus.

Losses due to improper drainage or lack of it and the means of correcting these losses is the theme of this book. Covers soil characteristics, general drainage facts, construction of drainage systems, drainage laws. Experiments for laboratory practice.

Dc 11. Fertilizers and Crops.—Lucius L. Van Slyke, Ph.D. Orange-

Judd. 1915. 720 pp. Illus.

Factors of soil fertility; sources, composition, selection and practical use of fertilizers in relation to growing of individual crops. Emphasis on reasons underlying use and on conditions of greatest efficiency. Composition tables.

Dc 12. Manures and Fertilizers.—H. J. Wheeler, Ph.D., D Sc. MacMillan. 1913. 366 pp.

Knowledge of chemistry necessary; text for college students and reference for those interested in scientific aspect of farming. A study of the different fertilizers, their source, composition, value and use.

Principles of Irrigation Practice.—J. A. Widstoe, A.M., Dc 13.

Ph.D. MacMillan. 1914. 484 pp. Illus.

Attempt to develop correct principles for use of water in irrigation. Technical terms avoided. Relation of water to soils and to plants. Crops under irrigation.

Dc 14. Dry Farming.—J. A. Widstoe, A. M., Ph.D. MacMillan. 1911. 427 pp. Illus.

General features of dry farm areas are discussed. History and present status. Main emphasis on principles underlying dry farming.

Dc 15. Dc 16. Dc 17.

## E.—ANIMAL HUSBANDRY. a.—BEEF CATTLE.

Beef Production .- H. W. Mumford. 1907. Author, Urbana, Ill. 209 pp.

Fattening cattle for the market; breeding beef cattle for the market; elementary principles of stock breeding. For cattle feeder and for student; also for general reader.

History of Shorthorn Cattle.—James Sinclair. 1907. Vinton Ea 2.

& Co. 895 pp. Illus.

A complete history of Shorthorn Cattle in England, Scotland and Ireland, with a lesser history in foreign countries; tracing in detail the herds of the various great breeders.

Little Sketches of Famous Beef Cattle.—Chas. S. Plumb, B.S. Pub. by Author, Columbus, Ohio. 1904. 99 pp. Life history of twenty-five famous beef cattle, giving also historical breed connections of each.

The Management and Feeding of Cattle.—Thos. Shaw. Orange-Judd. 1909. 468 pp. Illus. Ea 4.

Minute directions for the feeding and management of cattle from birth until disposed of. The subject is treated specifically and in orderly sequence in language as simple and free from technical terms as possible.

Short Horn Cattle.—Alvin Sanders. 1900. Sanders Pub. Ea 5. Co. 872 pp. Illus.

A series of historical sketches and records of the Shorthorn breed and its development in the United States and Canada.

The History of Herefords.—Alvin Sanders, LL.D. Breeder's

Gazette. 1914. 1087 pp. Illus.

Origin and development of the Hereford breed in Herefordshire. Introduction into the U.S. and Canada; rise to popularity in western cattle trade. Management of breeding herds.

Diseases of Cattle.—Bureau of Animal Husbandry, U. S. Dept. of Agriculture.

Discussions by various authorities on the diseases of cattle: and the symptoms indicating presence of same. The surgical or medicinal treatment necessary to check particular diseases explained.

Ea 8. Ea 9.

b.—Feeding.

Feeds and Feeding .- W. A. Henry, D.Sc., D.Agr. Pub. by Eb 1. author, Madison, Wis. 1915 (14th ed.) 503 pp. Large number of tables.

Handbook for student and stockman. Description of processes of digestion; feeding stuffs. Values as obtained through experiment station trials. Appendix gives composition tables and values of various feeding stuffs. Scientific terms used are defined.

Eb 2. Principles of Feeding Farm Animals.—Sleeter Bull, B.S.,

M. S. MacMillan. 1916. 373 pp. Illus., tables. Scientific facts underlying art of feeding animals, suitable for college text and also as reference book for farmer who has not had technical agricultural training. Scientific principles, feeding rations for different classes of farm animals, use of principal crops for feeding, nutritive and fertilizing values of feeds. Composition tables.

The Feeding of Animals.-W. H. Jordan. MacMillan. Eb 3.

1910 (8th ed.) 443 pp.

The scientific facts and principles concerning feeding. The practice of feeding: natural and commercial foods; rations; feeding for milk production, for growth, for meat production, for work; relation of food to production; general management. Composition and digestion tables.

Productive Feeding of Farm Animals.—F. W. Woll, Ph.D.

Lippincott. 1915. 362 pp. Tables, illus.

Principles of feeding farm animals, description of feeding stuffs, productive feeding of the various farm animals. Composition tables: rations.

Eb 5.

Eb 6.

Eb 7.

#### Ec.—GENERAL LIVESTOCK.

Judging Farm Animals.—Chas. S. Plumb. Orange-Judd. Ec 1. 1916. 508 pp. Illus.

Intended especially for the student. Information concerning relationship of form and function; each great class of animals discussed separately as a part of an important whole.

Ec 2. Types and Breeds of Farm Animals.—Chas. S. Plumb. Ginn & Co. 1906. 554 pp. Illus.

> The book is divided into four parts: Horse, ass and mule; cattle; sheep and goat; pig. The different breeds of each class are discussed, with comments on strong and weak points of each. List of references given on each subject.

Common Diseases of Farm Animals.—R. A. Craig. Lippin-Ec 3. cott. 1915.

A discussion of the various types of diseases, such as surgical, parasitic and infectious, which attack farm animals. Explains cause and advises means of prevention rather than their medicinal treatment.

At the Sign of the Stock-Yard Inn.—A. H. Sanders. Ec 4. "A true account of how certain great achievements of the past have been commemorated and cleverly linked with the present; together with sundry recollections inspired by the portraits at the Saddle and Sirloin Club."

Ec 5. Ec. 6.

#### Ed.—HORSES.

Productive Horse Husbandry.—Carl W. Gay, D. V. M., B. Ed 1. S. A. Lippincott's Farm Manuals. 1914. 319 pp. Good Illus.

Structure and formation of the horse, types and breeds, principles of breeding, care and management in service.

Ed 2. 1 The Horse in Health and Disease.—F. B. Hadley, D. V. M.

W. B. Saunders Co. 1915. 250 pp. Illus.

Designed as an introductory text to the study of Veterinary Science in agricultural schools and colleges; also as a reference book for stockmen. Effort to correlate the structure and formation of each organ of the body. Causes, methods of prevention and effects of disease.

Ed 3. The Horse Book.—J. H. S. Johnstone. Sanders Pub. Co.

1908. 298 pp. Illus.

Designed to be of practical value to those who intend to produce types of horses in general demand on farms and in markets. Origin and breeding of horses; discussion of various draft breeds.

Ed 4. History of the Percheron Horse.—A. H. Sanders, D. Agr., LL.D. The Breeder's Gazette, Chicago. 1917. 602 pp. Illus.

Data concerning origin and development of the modern type of heavy draft horse; with detailed accounts of the introduction and dissemination of the breed throughout the U. S.

Ed 5. Stable Management and Exersise.—Capt. M. H. Hayes, F. R. C.V. S. Hurst, Blackett, Lim. 1900. 413 pp. A few Illus.

Scientific principles and practical methods of the care, feeding and exercise of the horse.

Ed 6. Horses, Saddles and Bridles.—Gen. Wm. H. Carter, U. S. Army. The Lord Baltimore Press, The Friedenwald Co., Baltimore, Md. 1906. 405 pp.

Aims particularly to give better knowledge of the horse for the use of cavalrymen in U. S. Army: Judging; equipment and training; endurance of the horse, age, stable management, veterinary supplies and prescriptions, diseases and injuries; transportation.

Ed 7. Illustrated Horse Breaking.—M. H. Hayes, F. R. C. V. S. Hurst & Blackett, Lim. London. 1895. 374 pp. Illus.

Attempt to describe a reasoned-out system of horse breaking, in accordance with English and Irish ideas on the subject.

Ed 8. Special Report of Diseases of Horses.—Bureau of Animal Industry, U. S. Dept. of Agriculture.

Authoritative articles on the various diseases of the horse, their cause, symtoms and treatment.

Ed 9. Ed 10.

# Ee.—POULTRY HUSBANDRY.

Ee 1. Poultry Keeping.—Harry R. Lewis, B. S. Lippincott. 1915. 358 pp.

Elementary text for use in rural and graded schools; especially adapted for 7th and 8th grades, but can be used in high school. Essentials in the management of a small flock of chickens. Attempt to make applicable to all sections of the U.S. Laboratory exercises and thought questions at the end of each chapter.

Ee 2. Poultry Breeding and Management. James Dryden. Orange-Judd. 1916. 398 pp. Illus.

Practical problems of poultry production. History, breeds and breeding, systems of poultry farming, housing and feeding; brooding; marketing; diseases and parasites.

Ee 3. Poultry Production.—Wm. A. Lippincott, A.B., B.S. Lea & Febiger. 1916. 505 pp. Illus., diag., tables.

Statement of the facts and principles of poultry production, for use of the student. Breeding and rearing domestic birds for food purposes and preparing the products for the market.

Ee 4. Principles and Practices of Poultry Culture.—John H. Robinson, Ginn & Co. 1912. 596. Very good illus, and diag.

Emphasis placed on principles applying to all classes of poultry. The poultry industry; production—types, location, systems of poultry keeping, housing, feeding, etc.; reproduction—principles and their application; the poultry fancy-exhibitions and shows.

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#### Ef.—SHEEP.

Ef 1. Productive Sheep Husbandry.—W. C. Coffey. Lippincott (Farm Manuals). 1918. 460 pp. Illus.

History of sheep raising and breeding, structure and judging; breeds; management of the flock; feeding; short discussion of sheep management on western ranges. The aim is to bring about better sheep husbandry.

Ef 2. Sheep Farming (Rural Science Series).—John A. Craig, MacMillan. 1913. 298 pp. Illus.

Consideration of sheep as having a place in intensive stock farming; discussion of the various breeds; formation, improvement and management of the flock; preparation of sheep for show; short discussion of diseases of sheep.

- Ef 3. Sheep Management.—Frank Kleinheinz. Pub. by Author. 1912. 220 pp. Illus.
  - Practical problems of care and management of sheep; establishment and general management of flock; feeding, rearing of lambs, shearing and dipping, preventing parasites, preparation for market and for show rings.
- Ef 4. The Sheep and Its Cousins.—R. Lydekker, F. R. S. E. P. Dutton & Co. 1913. 310 pp. Illus. very good.

Short discussion of early history and names of sheep, and of zoological position and structure. The main part of the book deals with the chief breeds of sheep from all parts of the world.

Ef 5. Sheep and Their Diseases.—Dr. Wm. A. Rushworth, Chicago. 1914. (3 ed.) 409 pp. Illus.

Short history of sheep and description of breeds; structure of sheep. The diseases of sheep and their treatment are par-

of sheep. The diseases of sheep and their treatment are particularly emphasized. Table of medical agents. Federal and state inspection.

Ef 6.

Ef 7. Ef 8.

# Eg.—SWINE HUSBANDRY.

Eg 1. Swine in Amerira.—F. D. Coburn. Orange-Judd. 1909. 587 pp. Illus.

Facts gathered from practical experience. Breeds and breeding; feeding, care and housing; slaughtering and curing;

diseases of swine...

Eg 2. Productive Swine Husbandry.—G. E. Day, B. S. A. Lippin-

cott. 1915. 355 pp. Illus. and tables.

Text book for agricultural student and for farmer; practical side placed foremost. General principles of swine production, such as breeding, feeding and management, marketing; meat curing; also building, sanitation and disease.

Eg 3. The Hog Book.—H. C. Dawson. Breeder's Gazette. 1913.

408 pp. Illus.

Practical handling of swine in the American corn belt. Takes up a few of the standard breeds; housing, feeding, breeding; curing and marketing of meat.

- Eg 4. Swine.—Wm. Dietrich. Sanders Pub. Co. 1910. 310 pp. Breeds and breeding, feeding, general care and management. Purpose to present material so that it will be understood by general farmer and swine breeder and also be of use to the student.
- Eg 5. Forty Years' Experience of a Practical Hog Man.—A. J. Lovejoy. Frost Pub. Co., Chicago. 1914. 170 pp. Illus.
  A good practical hog book. General.
- Eg 6. Hogs in Kansas.—J. C. Mohler. Kans. State Board of Agriculture, Topeka. 1918. 429 pp. Illus.

  Deals with important types, breeds, breeding, feeding, housing, diseases, marketing, butchering, curing, etc.
- Eg 7. Swine Diseases.—A. T. Kinsley, M.S., D.V.S. Am. Journ. of Med., Chicago. 1914. 232 pp. Illus.

  The book covers the diseases of the verious internal sys.

The book covers the diseases of the various internal sys-

tems, of the skin, and infectious diseases.

Eg 8.

Eg 9.

#### F.—APICULTURE.

- First Lessons in Beekeeping.—C. P. Dadant Am. Bee Journal, Hamilton, Ill. 1918. 161 pp. Illus. excellent. Especially intended for colleges and schools giving short courses in bee culture. Most practical modern methods in beekeeping. A very good book.
- F 2. The A. B. C. of Bee Culture; a cyclopedia of everything pertaining to the care of the honey bee. - Amos Ives Root. Medina, Ohio. 1899. 437 pp. Illus.
- Productive Beekeeping.—Frank C. Pellett. Lippincott's Farm Manuals. 326 pp.
- The A. B. C. and X. Y. Z. of Bee Culture.—Amos I. Root and E. R. Root. Medina, Ohio. A. I. Root Co. 1917. 830 pp. Illus.

A cyclopedia of everything pertaining to the care of the honey bee. Bees, hives, honey, implements, etc.

F 5. Beekeeping.—E. F. Phillips. MacMillan. 1917. plates, diag.

A discussion of the life of the honey bee and of the produc-

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tion of honey.

'Fifty Years Among the Bees .- Dr. C. C. Miller. A. I. Root F 6. Co. 1915.

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# G.-DAIRYING AND DAIRY CATTLE.

a.-DAIRY CATTLE.

Dairy Cattle and Milk Production .- C. H. Eckles. Mac-Millan. 1911. 342 pp. Illus.

Prepared for the student and the farmer. Breeding, selection, feeding, and care of dairy cattle; milk and its products.

Productive Dairving.—Washburn, M.S. A. Lippincott. Ga 2. 1917. 425 pp. Illus.

Rather general; finer technical points omitted. Includes breeds, care and management of dairy cattle, clean milk production, farm dairying and marketing of milk.

Ga 3. Dairy Cattle Feeding and Management.—Carl W. Larson, M.S.A., Ph.D., and Fred S. Putney, M.S. John Wiley & Sons.

1917. 461 pp. Good illus., tables, rations, etc.
Relation of dairying to agriculture; principles of nutrition, rations, selection of feeds and feeding; care, development of dairy herd; production of high grade milk; common diseases; dairy equipment; marketing.

Ga 4. The Guernsey Breed.—Chas. L. Hill. F. D. Kimball Co.

1917. 411 pp. Illus.

Origin of the Guernsey cow, its development on the Island of Guernsey, and its introduction into America and other countries. Private and official tests and various records. Feeding and care for record making. Large number of tables giving the records of registered cows of the Guernsey breed.

Ga 5. Holstein-Fresian Cattle.—F. L. Houghton. Holstein-Fresian

Register, Brattleboro, Vt. 1897. 66 pp.

History of the breed and its development in America; value for milk and butter, for beef and veal, for general purposes. List of private and authenticated milk and butter yields of the breed. Methods of breeding, handling, feeding and showing.

Ga 6. Dairy Queen.—Ph. L. S. Mourant. Pub. by J. T. Bigwood,

States' Printer, Jersey. 1907. 87 pp.

Aim of book to "show that the Jersey Cow stands preeminently foremost in every respect as the practical cow for all dairy purposes." Eulogy of Jersey breed—biased presentation. Origin, history, physical characteristics, inbreeding, feeding and management, market value, exportation.

Ga 7. The Dairy Cow. A Monograph on the Ayrshire Breed of Cattle.—E. L. Sturtevant, M. D., and J. N. Sturtevant. A. Williams & Co., Boston, 1875.

General description. The Ayrshire as a producer of milk, butter, cheese, meat; adaptability; history of the breed; list of importations and importers; pedigrees; Illus. of a few prize animals.

Ga 8. Cattle: Breeds and Origin.—David Roberts, D.V.S. Pub. by author, Waukesha, Wis. 1916. 177 pp. Excellent Illus.

Object of the book is "to bring before boys and girls as well as adults the importance of the cattle industry." The study of the cow as related to various branches of study. Breeds of cattle common in America and short discussion; selection, feeding and marketing. The book is general, but written in interesting manner.

Ga 10.

#### Gb.-MILK AND ITS PRODUCTS.

Gb 1. Testing Milk and Its Produrts,—Farington and Woll. Mendota Book Co. 1912 (21st rev. ed.) 289 pp. Illus.

For students of no more than common school education; additional explanations by teacher necessary. Complete directions for making tests of milk and milk products; for advance dairy students one chapter on chemical analysis of milk and dairy products, detection or preservatives, artificial butter or filled cheese. Chapter on systems of factory bookkeeping.

City Milk Supply.—H. N. Parker. McGraw-Hill Book Co.,

1917. 286 pp. Illus. Production of milk, transportation and delivery to city consumer. Methods adopted to insure its purity. Diseases communicable in milk; dairy cattle and the dairy farm; sanitary milk production; the milk contractor; control of the public milk supply.

The Pasteurization of Milk from the Practical View Point.— Chas. H. Kilbourne. John Wiley & Sons, N. Y. 1916. 241 pp. Reasons for pasteurization and its effect on milk. A hand-

book relating to the installation, operation and control of pasteurizing plants. Useful to milk dealer, student, public official, and to general public.

Condensed Milk and Milk Powder.—O. F. Hunziker, B.S.A.,

M.S.A. Pub. by Author. 1914. 232 pp.

Manufacture of condensed milk, sweetened and unsweetened; processes from factory to consumer; defects, causes and prevention. Milk powder. Tests and analysis.

Gb 5. The Milk Question.—M. J. Rasenau. Houghton, Mifflin Co.

1912. 302 pp.

The book is a series of lectures given at Northwestern University in 1912 to stimulate scientific research. General consideration of milk; milk as a food; dirty and clean milk; pasteurization; infant mortality; from farm to consumer.

- Gb 6. The Book of Ice Cream.—Fisk. MacMillan. (In press.)
- Modern Methods of Testing Milk and Milk Products.-L. L. Gb 7. Van Slyke. 1911. Orange-Judd. 213 pp. Handbook prepared for use of dairy students, producers, etc., giving methods for testing milk and milk products,

The Book of Butter.-E. S. Guthrie, Ph.D. MacMillan.

1918. 264 pp. Illus.

A text on the nature, manufacture and marketing of the product. History of butter, composition, and food value. Whey butter, renovated and labeled butter, margarine: testing.

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#### H.—ECONOMIC ENTOMOLOGY.

H 1. Insect Pests of Farm, Garden and Orchard.—E. D. Sanderson. John Wiley & Sons. 1915. 684 pp. Illus.

Discussion of insects injurious to grain, grasses, vegetables, fruits and miscellaneous crops and methods for their control.

H 2. Entomology.—J. W. Folsom. P. Blakiston & Son. 1913 (2 ed.) 402 pp. Illus.

Entomology, with special reference to its biological and

economic aspects.

H 3. Manual of Vegetable-Garden Insects.—C. R. Crosby and M.

D. Leonard. MacMillan. 1918. 391 pp. Illus. A concise discussion of the habits, life history and control of the insect enemies of vegetable garden crops in the U.S. and Canada. Lists specific pests attacking particular vegetables and control of same.

The Spraying of Plants. E. G. Lodeman. MacMillan. H 4.

1913. 383 pp.

History of spraying in foreign countries and U.S.; materials and formulas used; spraying machinery and devices; use of insecticides and fungicides. Principles and practices. Specific directions for spraying cultivated plants. Laws relating to spraying of plants.

H 5. Life Histories of American Insects.—C. M. Weed, D. Sc. MacMillan. 1906. 270 pp.

Non-technical discussion of the life histories of various American insects.

H 6. Manual of Fruit Insects.-M. V. Slingerland and C. R.

Crosby. MacMillan. 1915. 503 pp. Illus.

Main facts relating to the distribution, life history and habits of the more common insects affecting fruit, the nature and extent of the injury, and the means of control.

H 7. Injurious Insects: How to Recognize and Control Them.—W.

C. O'Kane. MacMillan. 1912.

Structure, habits and classification of insects; methods of insect control; injurious insects of garden and field crops, of orchard and small fruits, of household, of stored products and of domestic animals.

H 8.

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# L-EARM ACCOUNTING AND FARM MANAGEMENT.

(Rural Economics).

Ι 1. The New Business of Farming.—J. A. Bimock. F. A. Stokes Co. 1918.

Treatise on farming from standpoint of organization as a business; selection of crops and animal enterprises with a view to their adaptation to their particular region. Written in simple form; adapted to secondary schools.

Elementary Economics.—C. M. Thompson, Ph.D. Benj. H. Sanborn & Co. 1919. 414 pp.

For use as a high school text in teaching the principles of economics. The book is divided into five general parts; Economics as a social science; Consumption of economic goods; Problems of production; The exchange of economic goods; Distribution of the social income.

I 3. Farm Management.—Andrew Boss. Lyons and Carnahan. 1914. 233 pp.

For full semester course, preceded if possible by course of farm records and accounts; for secondary schools, best results in junior and senior years. Only large and more general problems in farm management discussed. Attempt to teach the principles of farm management; should be connected directly with the farms from which the pupils come. Technical terms avoided.

I 4. Principles of Rural Economics.—T. N. Carver, Ph.D., LL.D. Ginn & Co. 1911. 382 pp.

Salient features of the rural problem; emphasizes the public and social aspects more than business aspect.

I 5. Farm Accounting.—H. T. Scovill. D. Appleton & Co. 1918. 410 pp.

Principles of bookkeeping from the common sense viewpoint. In the application of these principles agricultural operations and transactions are used. Interpretation and criticism of results.

I 6. Farm Management.—G. F. Warren, Ph.D. MacMillan. 1913. 383 pp.

For use of farmers and students. Takes up different methods of farming in different sections of the U.S.; question of capital; methods of renting land, choosing a farm, etc.

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# J.—FORESTRY.

J 1. Principles of Handling Woodlands.—Henry S. Graves. John

Wiley & Sons. 1914. 320 pp. Very good illus.

"Deals primarily with the principles of cutting mature stands of timber with a view to their replacement by new growth; cuttings in immature stands for improvement; forest protection with particular reference to forest fires." Presented from standpoint of present day conditions, Use of technical terms already established.

J 2. Farm Forestry.—John A. Ferguson, A. M., M. F. John

Wiley & Sons. 1910. 231 pp. Good illus.

For students in agricultural colleges and high schools. The aim is to bring together in available form ideas and principles already well known. Origin and use of the woodlot; establishing a woodlot by artificial means and what trees to use; care, protection and management.

J 3. The Farm Woodlot. E. G. Cheyney and J. P. Wentling. MacMillan. 1914. 337 pp.

The establishment, care and utilization of small patches or plantations of timber maintained in connection with the farm. Brief and popular style.

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J 4. Practical Forestry.—John Gifford. D. Appleton & Co. 1909. 273 pp. Illus.

For the general reader and beginner, practical as possible. Though not intended primarily as a text, may be used as such in secondary schools. Covers forest geography, formation and tending of forests, industrial importance of forests.

J 5. Principles of American Forestry.—Samuel B, Green. 1913.
 John Wiley & Sons. 305 pp. Tabular classification of trees

(40 pp).

Elementary book prepared especially for beginners in the subject. General text, covering the forest, forest influences, tree planting on the prairies, propagation, nursery practice, forest protection, forest mensuration, uses and durability of wood; forest economics.

J 6. A First Book of Forestry.—Filibert Roth. Ginn & Co.

1902. 281 pp. Very good illus.

For use in public schools. Simple, non-technical language setting forth some of the general principles underlying the science of forestry; statement of methods and objects to be attained. The forest, its care and protection.

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# K.—HORTICULTURE. a.—Landscape Gardening.

Ka 1. Landscape Gardening.—F. A. Waugh. J. Wiley & Sons. 1912. Illus.

Covers the field of landscape art in a general way. Very readable, non-technical in make-up.

Ka 2. Our Native Trees.—Harriet L. Keeler. Chas. Scribners' Sons. 1908. 525 pp. Large no. illus.

Popular study of the habits and pecularities of the different trees; for amateur and general public. Trees from Atlantic to Rocky Mountains, Canada to northern boundary of southern states.

Ka 3. Our Northern Shrubs.—Harriet L. Keeler. Chas. Scribners' Sons. 1908. 521 pp. Illus.

How to identify the various shrubs.

Our Garden Flowers.—Harriet L. Keeler. Chas. Scribners' Sons. 1910. 550 pp. Illus. Popular study of their native lands, their life histories, and

their structural affiliations.

Town Improvement.-F. N. Evans. D. Appleton & Co. Ka 5.

Landscape Gardening as Applied to Home Decoration.—S. T. Ka 6. Maynard. 1915. John Wiley & Sons. 396 pp. Illus. Landscaping the small place; general principles of landscape design.

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#### Kb.—ORCHARDING.

The Principles of Fruit Growing.—L. H. Bailey. MacMillan. 1915. 430 pp. Illus.

The principles of fruit growing with applications to practice. Location and climate, tillage of fruit lands, fertilizers, planting, care, diseases, harvesting and marketing.

The Pruning Book.-L. H. Bailey. MacMillan. 1914. Kb 2. (14th ed.) 545 pp. Illus. Pruning and training of plants, as applied to American conditions.

Kb 3. Productive Orcharding.—F. C. Sears. Lippincott. 1914. 315 pp. 157 illus. Modern methods of growing and marketing fruits.

The Apple.—A. E. Wilkinson. Ginn & Co. 1915. 492 pp. Kb 4. Illus., tables, diag. Treatise dealing with modern methods and practices of apple culture.

- Kb 5. Peach Growing.—H. P. Gould. MacMillan. 1918. 426 pp. Illus. 32 plates.
- How to Make a Fruit Garden.—S. W. Fletcher. Doubleday, Kb 6. Page & Co. 1914. 383 pp. Illus., plates.
  A practical and suggestive manual for the home garden.
- The American Fruit Culturist.—J. J. Thomas. W. Wood & Co., N. Y. 1914. Illus.

Practical directions for the propagation and cultivation of all kinds of fruits adapted to the U.S. General principles and practices; the different kinds of fruit.

Strawberry Growing.—S. W. Fletcher. MacMillan. 1917. Kb 8. 325 pp. Illus., plates. Complete directions of strawberry culture.

Kb 9. Manual of American Grape Growing. Herick. MacMillan. Bush Fruits.—F. W. Card. MacMillan. 1914. 537 pp. Kb 10. Illus. A horticultural monograph on raspberries, blackberries, and other shrub like fruits. Orchard and Garden.—B. W. Douglass. Federal Pub. Co. Kb 11. 1917. Elementary book in orcharding. Standard Cyclopedia of Horticulture.—L. H. Bailey. Mac-Kb 12. Millan. 1914-16. 6 vol. Colored plates, 4,000 engravings, 96 full page cuts. A discussion for the amateur, the professional and the commercial grower of the kinds, characteristics and methods of cultivation of fruits and vegetables grown in the U.S. and Kb 13. Kb 14. Kb 15. Kc.-VEGETABLE GARDENING. Productive Vegetable Gardening.—I. W. Lloyd. Lippincott. 1914. 399 pp. 193 illus. A comprehensive discussion of the planting and care of vegetables. Advises concerning water supply, control of insects and marketing. Manual of Gardening.-L. H. Bailey. MacMillan. 1916. 541 pp. Illus., plates. A practical guide to the making of home grounds, and the growing of flowers, fruits and vegetables for home use. How to Grow Vegetables and Garden Herbs.—Allen French. MacMillan. 1917. 309 pp. Illus. The beginner's garden book. A textbook, beginning with fall work at opening of school, following through the year so that the garden cycle is completed. Vegetable Growing.-J. G. Boyle, B. S., M. S. Lea & Febiger. 1917. 350 pp. Illus. Vegetable Gardening, 1,000 Hints in.—Mae S. Croy. 1917. Kc 5. 275 pp. A list of all kinds of vegetables, herbs, small fruits, garden crops, with a few hints as to the planting, care, etc., of each. The hotbed, soil, and fertilizers. General principles of gardening. Vegetable planting table. Around the Year in the Garden.-F. F. Rockwell. Mac-Kc 6. Millan. 1917. 350 pp. 31 plates. Illus. A seasonable guide and reminder for the work with vegetables, fruits and flowers. Growing under glass. Kc. 7. Kc 8.

Kc 9.

#### L.—RELATED SCIENCES.

L 1. Agricultural Bacteriology.—H. W. Conn, Ph.D. P. Blakiston's Son & Co. 1913 (3 ed.) 350 pp.

Bacteria as related to agriculture and secondary industries. Bacteria in soil and water, in dairy products, in miscellaneous farm products; parasitic and disease bacteria. Laboratory work and disinfectants.

L 2. Farm Science.—W. J. Spillman, D.Sc. World Book Co. 1918. 335 pp. Illus.

Deals with fundamental principles; does not go into details of practice. Attempt to put in form suitable for class room use. Takes up general principles concerning the soil, the plant, the animal, and the farm.

L 3. General Agricultural Chemistry.—W. E. Tottingham and Edwin Bret Hart. Pub. by authors, Madison, Wis. 1913.

For the young farmer and student beginning the study of agricultural chemistry. No extended knowledge of chemistry required. Emphasis on the application of chemistry to agriculture.

L 4. Agricultural Bacteriology.—H. L. Russell and E. C. Hastings. Pub. by H. L. Russell, Madison, Wis. 1915. 300 pp.

Bacteriology in relation to agricultural science. Properties of micro-organisms; soil bacteria; the relation of micro-organisms to foods; transmissable diseases.

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#### M.—RURAL LIFE.

M 1. Introduction to Rural Sociology.—P. L. Voght. D. Appleton & Co., New York. 1918. 443 pp. Illus. Diags.

Result of some surveys in a few rural districts. General comparative discussion of rural and city communities in regard to morals, health and general conditions.

M 2. Constructive Rural Sociology.—John M. Gillette. Sturgis & Walton Co., N. Y. 1913. 292 pp.

Purpose of book is "to provide in a clear and untechnical way the fundamental facts upon which judgments about best development, present tendencies and future growth are to be based." Text for universities, colleges and normal schools. Scope of rural sociology, differentiation between rural and urban communities; movement of population from country to city.

M 3. Rural Life.—Charles J. Galpin. The Century Co. 1918. 180 pp. Illus.

The purpose of the book to stimulate people to study their own communities. The rural problem as a social problem; social structure.

M 4. Rural Life in Education.—E. P. Cubberley. Houghton, Mifflin Co. 1914. 362 pp. Illus.

The historical and sociological setting for the rural school problem. The statement of the rural school problem and the fundamental remedies for its solution.

M 5.

M 6.

## N.—MISCELLANEOUS.

#### a.-LABORATORY MANUALS.

The use of the laboratory manual is somewhat limited in the teaching of agriculture by the project method, unless the manual is confined to particular subjects or divisions of agriculture. There are a few such manuals on the market that vocational teachers should have in the library if not in the hands of their pupils. There are also a number of manuals on the market covering the general field of agriculture. These manuals suggest exercises which may be carried on in the laboratory. Many of them take up a wide field of subjects from the classifying of insects to the feeding of animals. The manuals here listed will be found helpful as guides for laboratory exercises.

Na 1. Agricultural Laboratory Exercises and Home Projects.— Waters and Elliff. Ginn & Co. 1919. Chicago. Illus.

The exercises are listed under the following captions: plant life and growth, soil and its management, field and orchard crops, insect and plant diseases, breeds and types of animals, feeding animals, farm equipment, production projects, soil projects and improvement projects. More than one hundred exercises. Will be found helpful in course in general agriculture. Blank pages included to be used as notebook.

Na 2. One Hundred Exercises in Agriculture.—Gehrs and James. 1916. MacMillan. Illus.

One hundred exercises listed under the following captions: soils, field crops, farm animals, plant propagation and horticulture and farm management. A list of apparatus required and blank pages to be used as a notebook included.

Na 3. Soil Laboratory Manual and Notebook.—Eastman & Davis.

Lippincott Pub. Co. Philadelphia. 1915.

Exercises for laboratory work in soils, including soil physics and soil fertilizer. Questions and problems stated at the end of each exercise to aid in the application of the principles involved in the exercise. Blank spaces for recording data. Thirty-two exercises.

Na 4. Feed Manual and Notebook.—F. W. Woll, Ph.D. 1917.

J. B. Lippincott Co.

Eighty-two exercises for laboratory work in feed materials. "Furnishes a guide for the uses of feeds in compounding rations that is both scientifically correct and sound from a practical point of view."

Na 5. Poultry Laboratory Manual and Notebook.—Harry R. Lewis.

1918. J. B. Lippincott Co.

Forty-four laboratory exercises in poultry husbandry. "Following each exercise blank spaces are left in order that book may be used in part as a notebook and answers and important notations can be made directly in the book while the laboratory work is in progress."

Na 6. Dairy Laboratory Manual and Notebook.—Ernest L. Anthony,

B.S.A., M.S. 1914. J. B. Lippincott Co.

Forty-three laboratory exercises for general courses in the elements of dairying. Exercises cover the Baboock Tester, Lactometer and farm separators and churns. "The exercises are on separate pages so that the book may be used as a notebook and all answers and notations may be made while the student is in the laboratory."

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#### BULLETINS AND CIRCULARS.

The College of Agriculture and Illinois Experiment Station issue technical bulletins giving experimental data which has been obtained from Illinois experiments. These bulletins are free to anyone within the state and may be obtained by addressing the Experiment Station. It is not a good plan for teachers to send for large numbers. Pupils should be encouraged to send for the bulletins which bear directly upon their particular problems. Circulars are also issued. The circulars are more popularly written than the technical bulletins.

Lists of available bulletins may be obtained from other experiment stations. Lists of bulletins published by the U. S. Department of Agriculture at Washington, D. C., may be obtained by addressing that department. There is not space in this bibliography to list the bulletins which are thought to be most helpful to the teacher. Lists of bulletins on any one particular subject may be obtained from the U. S. Department of Agriculture. The high school library should contain a large number of well selected bulletins to be used as special references.

#### SPECIAL PAMPHLETS AND CIRCULARS.

There are numerous valuable pamphlets and circulars issued by various industrial companies. Certain companies, such as the International Harvester Company, have spent large sums of money in establishing an educational department. Most of the material published by these companies may be obtained free of charge.

#### PICTURES AND SPECIAL PAMPHLETS.

Excellent pictures may be obtained from many of the breed associations. Publications are issued by many of these associations giving reports and interesting discussions concerning their particular breeds. Teachers should write to the breed associations for special information which is needed by boys in their project work. The addresses of the various breed associations may be obtained from the Department of Agricultural Education, Urbana. The list is not published in this bulletin because the addresses change frequently.

## FARM JOURNALS.

- 1. Prairie Farmer.—Prairie Farmer Pub. Co., Chicago. 85c. per year, issued every other Saturday. General farming in the middle west.
- 2. Breeder's Gazette.—Sanders Pub. Co., Chicago. Weekly, \$1.50 per year. Devoted to stock raising in the U. S.
- 3. Hoard's Dairyman.—Ft. Atkinson, Wis., W. D. Hoard & Sons, Pub. \$1.00 per year. Dairy industry in the U. S.
- 4. Wallace Farmer.—Wallace Pub. Co., Des Moines, Iowa. Weekly, \$1.25 per year. General agriculture in the U.S.
- 5. American Fruit Grower.—American Fruit Grower Co., Chicago. Monthly, \$1.00 per year.
- 6. Country Gentleman.—Curtis Pub. Co., Philadelphia. Weekly, \$1.00 per year. General; peculiarly adapted to intensive farming. Good editorials.
- 7. Everybody's Poultry Magazine.—Everybody's Poultry Magazine Pub. Co., Hanover, Penn. Monthly, \$1.00 per year. Poultry raising.
- 8. Kimball's Dairy Farmer.—F. L. Kimball Co., Waterloo, Iowa. Semi-monthly, 70c. per year. Devoted to dairy farming.
- 9. Orange-Judd Farmer.—Orange-Judd Farmer Pub. Co., Chicago. Weekly, \$1.00 per year. General farming.
- 10. The Swine World.—Jas. P. Doty Co., Chicago. Semi-monthly, \$1.00 per year. Swine industry in the U. S. Large number of advertisements.

#### PUBLISHING HOUSES.

American Bee Journal, Hamilton, Illinois. American Book Co., New York. American Journal of Medicine, Chicago. D. Appleton Co., 443-495 Broadway, N. Y. Richard G. Badger, The Gorham Press, Boston, Mass. J. T. Bigwood, States' Printer, Jersey. P. Blakiston & Son, 1012 Walnut St., Philadelphia. Bobbs, Merrill Co., Indianapolis, Ind. Breeders' Gazette, Chicago. Cambridge University Press, Cambridge, Mass. The Century Co., New York. Doubleday, Page & Co., Garden City, N. Y. E. P. Dutton Co., New York City. Federal Pub. Co., Indianapolis, Ind. Frost Publishing Co., 537 S. Dearborn, Chicago. Ginn & Company, New York City. D. C. Heath, New York City. Holstein-Fresian Register, Brattleboro, Vt. Houghton, Mifflin Co., Boston, Mass. Hurst, Blackett, Lim., London. Iowa Geological Survey, Ames, Iowa F. D. Kimball Co., Waterloo, Iowa. Lea & Febiger, New York City. J. B. Lippincott, Philadelphia, Penn. Longmans, Green & Co., New York City. Lord Baltimore Press, The Friedenwald Co., Baltimore, Md. Lyons & Carnahan, Chicago. MacMillan Company, Chicago. McGraw-Hill Book Co., New York City. Mendota Book Co., Madison, Wis. Orange-Judd Co., Chicago. Rand McNally Co., Chicago. A. I. Root Co., Medina, Ohio. Row, Peterson Co., 623 S. Wabash, Chicago. Benj. Sanborn & Co., Chicago. Sanders Pub. Co., Chicago. W. B. Saunders Co., Philadelphia, Penn. Chas. Scribners' Sons, New York City. Sturgis & Walton Co., New York City. U. S. Dept. of Agriculture, Washington, D. C. Vinton & Co., London. Webb Pub. Co., St. Paul, Minn. John Wiley & Sons, New York City. A. Williams & Co., Boston, Mass. W. Wood & Co., New York City. World Book Co., 2126 Prairie Ave., Chicago. U. S. Dept. of Agr., Washington, D. C. College of Agr. and Agr. Exp. Sta., Urbana, Ill.

